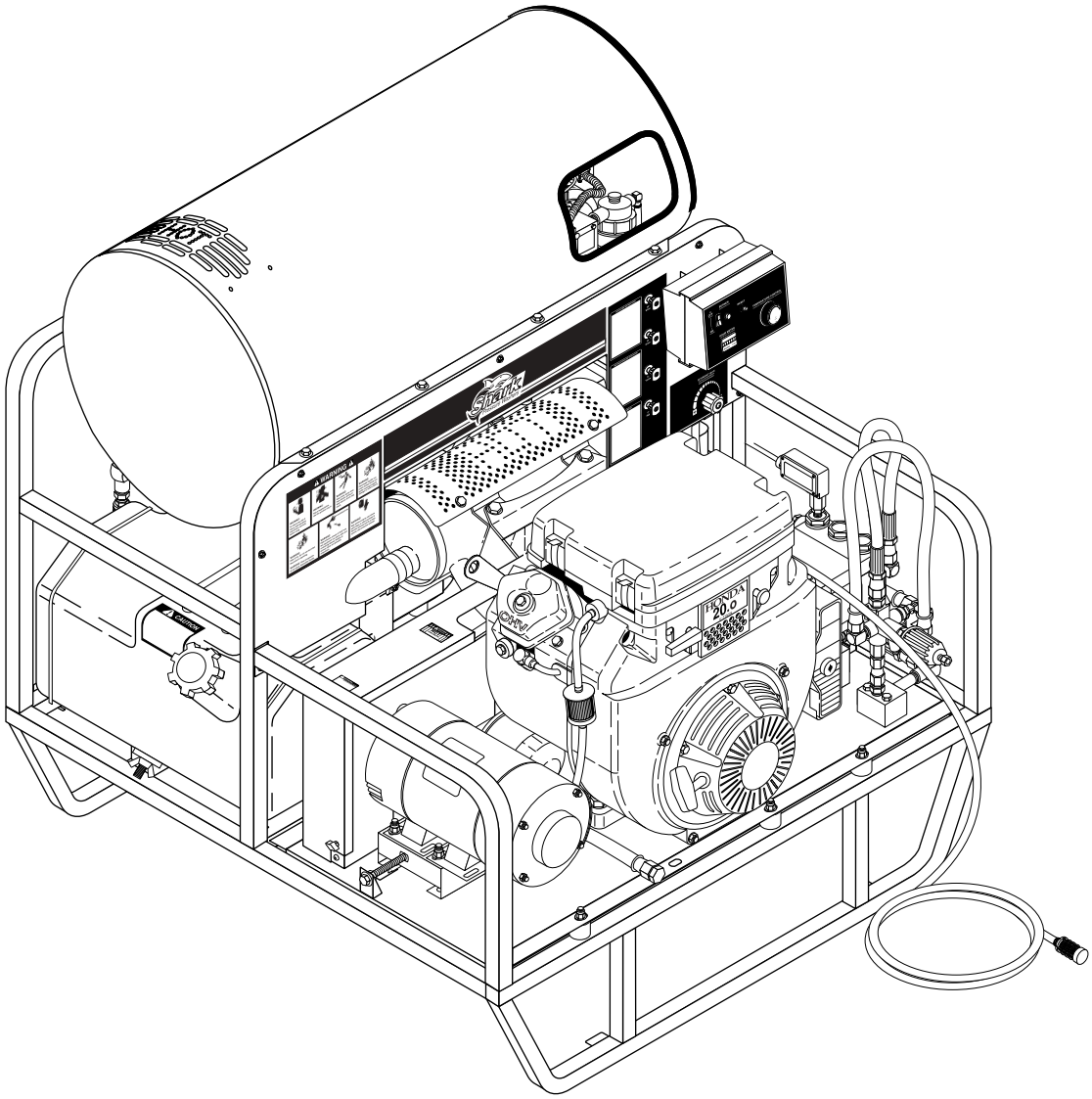
Shark® Pressure Washers

SSG

OPERATOR'S MANUAL

■ SSG-503021E ■ SSG-503027E ■ SSG-503531E ■ SSG-503537E ■ SSG-603531E/G
■ SSG-503021E/G ■ SSG-503027E/G ■ SSG-503531E/G ■ SSG-503537E/G ■ SSG-603537E/G



SHARK PRESSURE WASHERS ■ 4275 N.W. Pacific Rim Blvd. ■ Camas, WA 98607 ■ USA
For technical assistance or the Shark Dealer nearest you, call 1-800-771-1881.

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Model Number _____

Serial Number _____

Date of Purchase _____

The model and serial numbers will be found on a decal attached to the pressure washer. You should record both serial number and date of purchase and keep in a safe place for future reference.

INTRODUCTION

Thank you for purchasing our pressure washer.

This manual covers the operation and maintenance of the 503021E, 503021E/G, 503027E, 503027E/G, 503531E, 503531E/G, 503537E, 503537E/G, 603531E/G and 603537E/G washers. All information in this manual is based on the latest product information available at the time of printing.

We reserves the right to make changes at any time without incurring any obligation.

This series was designed for maximum use of 8 hours per day, 5 days per week.

Owner/User Responsibility:

The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using this pressure washer. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.

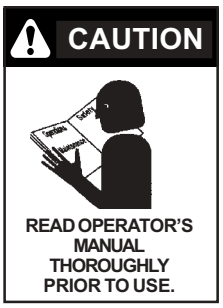
Owner and/or user must study and maintain for future reference the manufacturers' instructions.

This manual should be considered a permanent part of the machine and should remain with it if machine is resold.

When ordering parts, please specify model and serial number.

IMPORTANT SAFETY INFORMATION

WARNING: When using this product basic precautions should always be followed, including the following:



CAUTION: To reduce the risk of injury, read operating instructions carefully before using.

1. Read the owner's manual thoroughly. Failure to follow instructions could cause a malfunction of the machine and result in death, serious bodily injury and/or property damage.
2. Know how to stop the machine and bleed pressures quickly. Be thoroughly familiar with the controls.
3. Stay alert — watch what you are doing.
4. All installations must comply with local codes. Contact your electrician, plumber, utility company or the selling distributor for specific details.

WARNING: Risk of asphyxiation. Use this product only in a well ventilated area.

5. Avoid installing machines in small areas or near exhaust fans. Exhaust contains poisonous carbon monoxide gas; exposure may cause loss of consciousness and may lead to death. It also contains chemicals known in certain quantities, to cause cancer, birth defects, or other reproductive harm.

WARNING: Flammable liquids can create fumes which can ignite, causing property damage or severe injury.

CAUTION: Risk of fire. Do not add fuel when the product is operating.

6. Allow engine to cool for 2 minutes before refueling. If any fuel is spilled, make sure the area is dry before testing the spark plug or starting the engine. (Fire and/or explosion may occur if this is not done.)

   Gasoline engines on mobile or portable equipment shall be refueled:

   (a) outdoors;

   (b) with the engine on the equipment stopped;

   (c) with no source of ignition within 10 feet of the dispensing point; and

   (d) with an allowance made for expansion of the fuel should the equipment be exposed to a higher ambient temperature.

In an overfilling situation, additional precautions are necessary to ensure that the situation is handled in a safe manner.

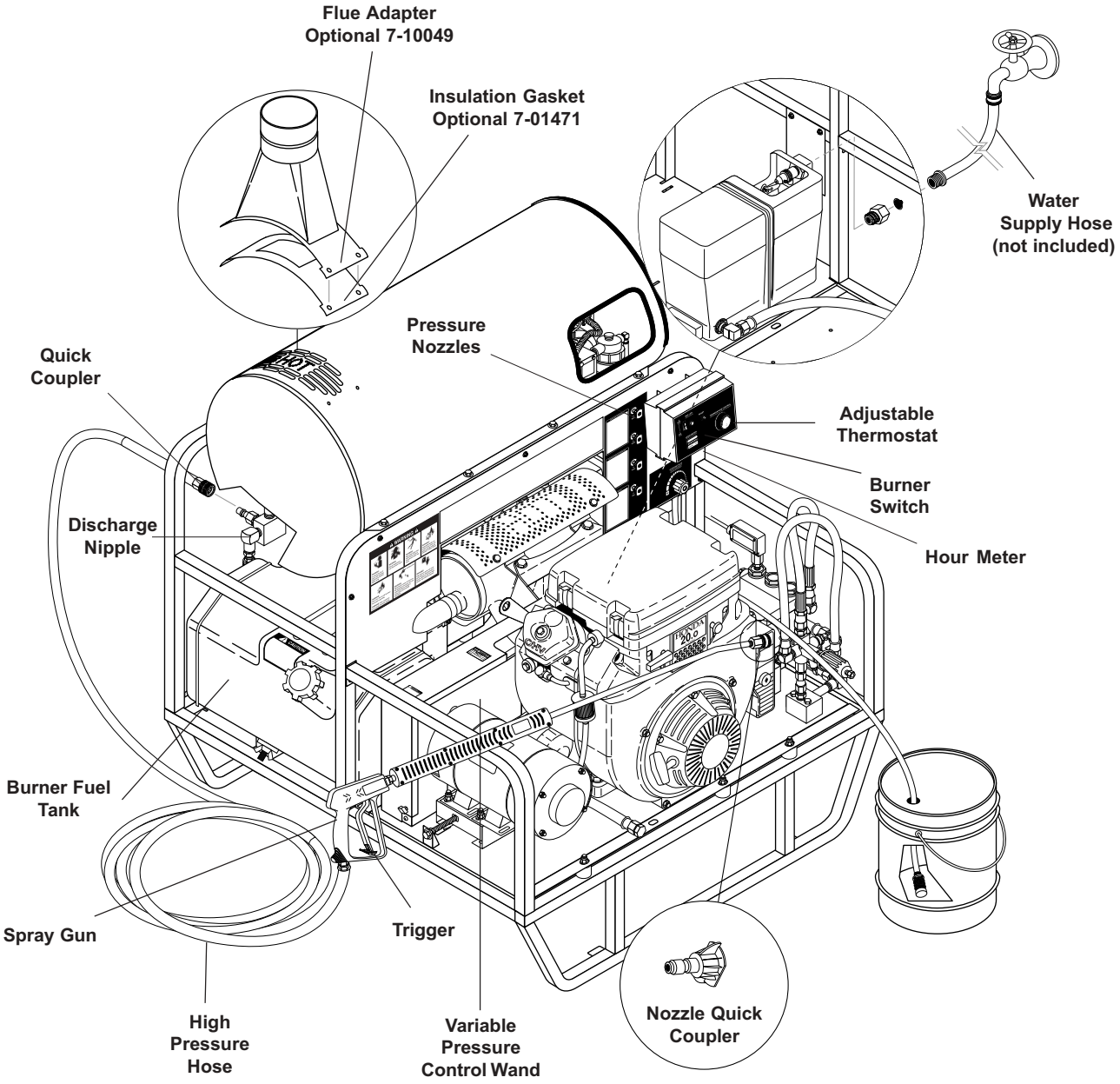
WARNING: Risk of explosion – do not spray flammable liquids.

7. Do not place machine near flammable objects as the engine is hot.

WARNING: Risk of injection or severe injury to persons - Keep clear of nozzle - Do not touch or direct discharge stream at persons. This machine is to be used only by trained operators.

CAUTION: Hot discharge fluid. Do not touch or direct discharge stream at persons.

COMPONENT IDENTIFICATION



8. High pressure developed by these machines will cause personal injury or equipment damage. Use caution when operating. Do not direct discharge stream at people, or severe injury or death will result.

WARNING: High pressure spray can cause paint chips or other particles to become airborne and fly at high speeds.

9. Eye safety devices, safety clothing and foot protection must be worn when using this equipment.
10. Never make adjustments on machine while it is in operation.

WARNING: Spray gun kicks back. Hold with both hands.

11. Grip cleaning wand securely with both hands before starting the cleaner. Failure to do this could result in injury from a whipping wand.
12. Machines with spray gun should not be operated with the spray gun in the off position for extensive periods of time as this may cause damage to the pump.
13. The best insurance against an accident is precaution and knowledge of the machine.
14. We will not be liable for any changes made to our standard machines, or any components not purchased from us.

WARNING: Keep wand, hose and water spray away from electrical wiring or fatal electric shock may result.

15. Read engine safety instructions provided.
16. Never run pump dry or leave spray gun closed longer than 2 minutes.
17. Inlet water must be cold and clean fresh water.
18. Use No. 1 or No. 2 Heating Oil (ASTM D306) only. **NEVER** use gasoline in your fuel oil tank. Gasoline is more combustible than fuel oil and could result in a serious explosion. **NEVER** use crankcase or waste oil in your burner. Fuel unit malfunction could result from contamination.
19. Do not confuse gasoline and fuel oil tanks. Keep proper fuel in proper tank.
20. Protect machine from freezing.
21. Be certain all quick coupler fittings are secured before using pressure washer.
22. Do not allow acids, caustic, or abrasive fluids to pass through the pump.
23. To reduce the risk of injury, close supervision is necessary when a product is used near children. Do not allow children to operate the pressure washer. **This machine must be attended during operation.**
24. Do not operate this product when fatigued or under the influence of alcohol or drugs. Keep operating area clear of all persons.
25. Protect discharge hose from vehicle traffic and sharp objects. Inspect condition of high pressure hose before using or bodily injury may result.
26. Before disconnecting discharge hose from water outlet, turn burner off and open spray gun to allow water to cool below 100°F before stopping the machine. Then open the spray gun to relieve pressure. Failure to properly cool down or maintain the heating coil may result in a steam explosion.
27. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
28. This machine must be attended during operation.
29. ***CAUTION: Risk of injury. Disconnect battery ground terminal before servicing.***

PRE-OPERATION CHECK

- ❑ Pump oil (SAE 30W non-detergent oil, General)
- ❑ Cold water supply (6 gpm • 5/8" • 3/4" preferred • 20 psi)
- ❑ Hose, wand, nozzle (nozzle size per serial plate)
- ❑ Water filter (intact, non restrictive)
- ❑ Engine fuel (unleaded 86 or higher octane)
- ❑ Engine oil (SAE 10W30)
- ❑ Burner fuel (No. 1 home heating fuel or diesel)

SET-UP PROCEDURES

This machine is intended for outdoor use only. Machine must be stored indoors when not in use.

1. Attach a 5/8" water supply hose to inlet connector. Minimum flow should be 6 or 10 gpm depending on model of machine.
2. Attach high pressure hose to discharge nipple using quick coupler. Lock coupler securely into place by pulling back coupler collar and inserting it into discharge nipple, then pushing collar forward to lock in place.
3. Attach variable pressure control wand to spray gun using teflon tape on threads to prevent leakage.
4. Attach swivel connector on discharge hose to spray gun using teflon tape on threads.

5. Check engine and pump oil level by removing oil dipstick, making sure oil is on proper indicator marking. Oil should be visible one half way up sight glass.
6. Fill 6 gallon gasoline tank.
7. Fill 9 gallon diesel fuel tank. Do not confuse gasoline and fuel oil (diesel) tanks. Keep proper fuel in proper tank.
8. Install proper battery making sure that the red cable is attached to the positive terminal. Use a 12V Group 24 battery.

OPERATING INSTRUCTIONS

1. Read engine warning and operating instructions.
2. Turn on water at faucet. Check for water leaks; tighten as needed.
3. Pull wand coupler collar back and insert desired pressure nozzle into wand coupler then secure by pushing coupler collar forward.

   NOTE: Variable pressure control wand handle must be turned clockwise to enable water to flow out of the high pressure nozzle.
4. Pull spray gun trigger to relieve pressure. Read engine manual provided and pull choke. Turn engine switch to the START position and hold it there until the engine starts. **NOTE:** Do not engage electric starter for more than five (5) seconds at a time. If engine fails to start, release the switch, pull spray gun trigger to relieve pressure and wait ten seconds before operating the start again. When the engine starts, allow the engine switch to return to the ON position. If the engine is to be started without the battery, turn switch to start position and pull starter grip to start. Turn off choke.

CAUTION: Small engines may kick back. Do not hold starter grip tightly in hand.

5. With the spray nozzle pointed away from you or anybody else, press the trigger on the spray gun to obtain pressurized cold water spray.
6. For hot water, turn the burner switch to ON when a steady stream of water flows out of the spray gun. Burner will now light automatically.

   NOTE: Do not start machine with burner switch on.
7. To apply detergent, place detergent pick-up tube into a container of detergent and turn handle on variable pressure control wand.

GENERAL WASHING TECHNIQUES

1. Hold spray nozzle approximately one foot from the surface being cleaned. Spray at an angle to get under the material and lift it off.
2. When detergent is required for cleaning, start washing from the bottom and work up. Better detergent economy and faster results will be obtained by allowing the chemical to set 5-10 minutes. After washing, rinse from the top down.
3. Cleaning heavy dirt or material away with a hard stream of clear water is recommended before using a cleaning agent.

SHUT DOWN PROCEDURES

1. Rinse all detergent lines with clean water, to remove any soap residue.
2. Turn burner switch off and continue spraying, allowing the water to cool to below 100°F.
3. Turn engine key switch off.
4. Turn off water supply.
5. Squeeze trigger on spray gun to relieve remaining pressure.
6. Remove water supply hose.
7. In freezing conditions, disconnect water, drain float tank and add a 50/50 mixture of anti-freeze. Start the machine and squeeze trigger on spray gun to allow the mixture to flow out of the wand. Now turn off the engine. Disconnect all hoses to allow water to drain. See winterizing procedure under Maintenance and Service.

CAUTION: Do not allow pump to run longer than 2 minutes without water.

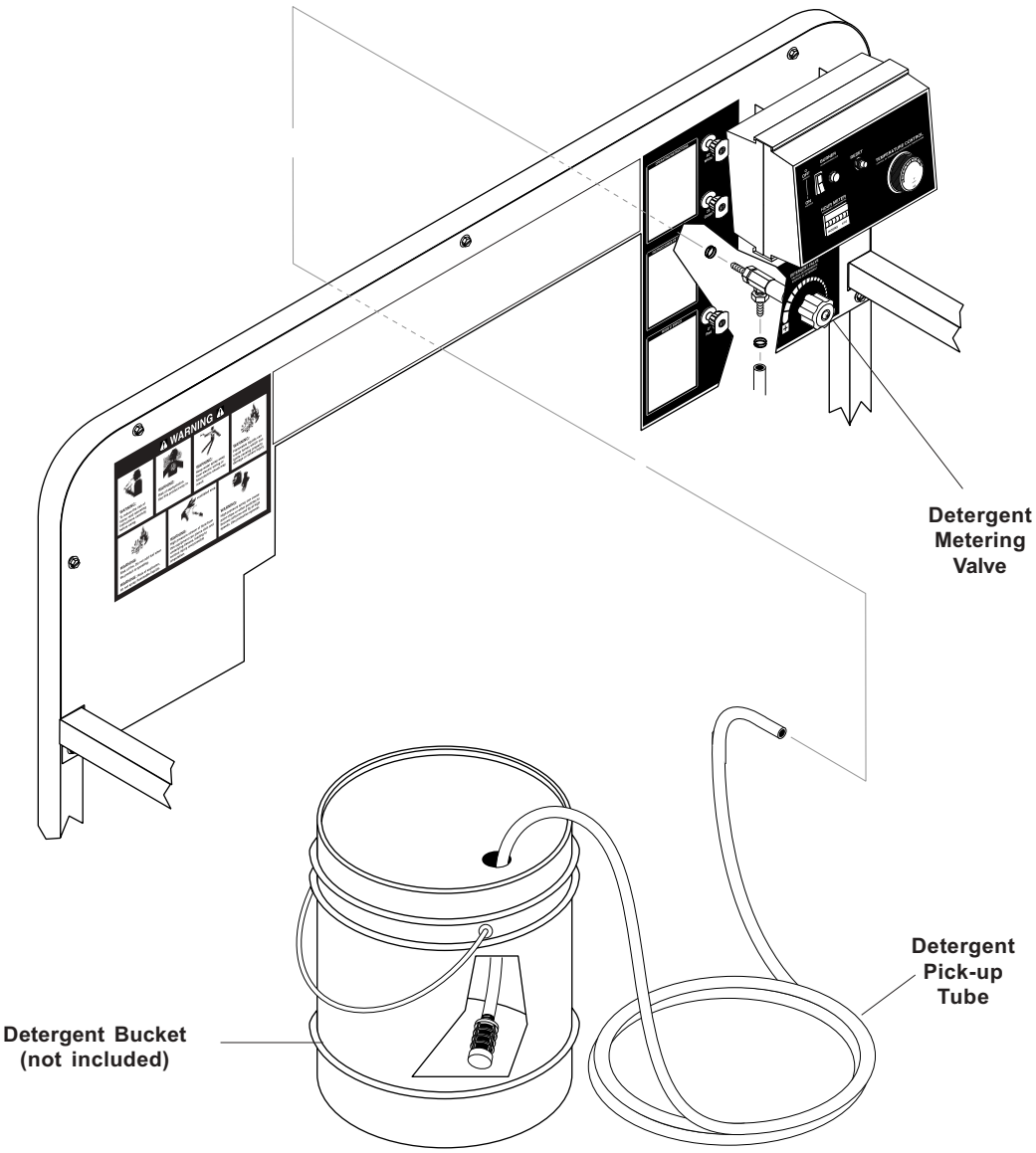
With machine off, open spray gun to release pressure before removing discharge hose.

HOW TO USE THE STANDARD DETERGENT INJECTOR

WARNING: Some detergents may be harmful if inhaled or ingested, causing severe nausea, fainting or poisoning. The harmful elements may cause property damage or severe injury.

The machine can siphon and mix detergents with the use of our detergent injector kit.

1. Start machine as outlined in Operating Instructions.
2. Place detergent pick-up tube into container of detergent.
3. Adjust the metering valve to desired detergent concentration.
4. When you finish washing, rinse by simply turning the metering valve clockwise to increase pressure.
5. For clean up, place detergent pick-up tube into container of clear water and turn the metering valve counterclockwise. Pull the trigger on the spray gun for 2 minutes.



PREVENTATIVE MAINTENANCE

1. Check to see that water pump is properly lubricated.
2. Follow winterizing instructions to prevent freeze damage to pump and coils.
3. Always neutralize and flush detergent from system after use.
4. If water is known to have high mineral content, use a water softener in your water system, or de-scale as needed.
5. Do not allow acidic, caustic or abrasive fluids to be pumped through system.
6. Always use high grade quality cleaning products.
7. Never run pump dry for extended periods of time.
8. Use clean fuel: kerosene, No. 1 fuel oil, or diesel. Clean or replace fuel filter every 100 hours of operation. Avoid water contaminated fuel as it will damage the fuel pump.
9. If machine is operated with smoky or eye burning exhaust, coils will soot up, not letting water reach maximum operating temperature.
10. Never allow water to be sprayed on or near the engine or burner assembly or any electrical component.
11. Periodically delime coils as per instructions.
12. Check to see that engine is properly lubricated.

It is advisable, periodically, to visually inspect the burner. Check air inlet to make sure it is not clogged or blocked. Wipe off any oil spills and keep equipment clean and dry.

The flow of combustion and ventilating air to the burner must not be blocked or obstructed in any manner.

The area around the pressure washer should be kept clean and free of combustible materials, gasoline and other flammable vapors and liquids.

MAINTENANCE AND SERVICE

Unloader Valves:

Unloader valves are preset and tested at the factory before shipping. Occasional adjustment of the unloader may be necessary to maintain correct pressure.

Winterizing Procedure:

Damage due to freezing is not covered by warranty. Adhere to the following cold weather procedures whenever the washer must be stored or operated outdoors under freezing conditions.

During winter months, when temperatures drop below 32°F, protecting your machine against freezing is necessary. Store the machine in a heated room. If this is not possible then mix a 50/50 solution of anti-freeze and water in the float tank. Turn the engine on to siphon the anti-freeze mixture through the machine. If compressed air is available, an air fitting can be screwed into the float tank by removing the float tank strainer and fitting. Then inject the compressed air. Water will be blown out of the machine when the trigger on the spray gun is opened.

High Limit Hot Water Thermostat:

For safety, each machine is equipped with a temperature sensitive high limit control switch. In the event that the water should exceed its operating temperature, the high limit control will turn the burner off until the water cools then it will automatically reset itself. The thermostat sensor is located on the discharge side of the heating coil. The thermostat control dial is located on the control panel.

Pumps:

Use only SAE 30 weight non-detergent oil. Change oil after first 50 hours of use. Thereafter, change oil every three months or at 500 hour intervals. Oil level should be checked through use of dipstick found on top of pump, or the red dot visible through the oil gauge window. Oil should be maintained at that level.

Cleaning of Coils:

In alkaline water areas, lime deposits can accumulate rapidly inside the heating coil. This growth is increased by the extreme heat build up in the coil. The best preventative for liming conditions is to use high quality cleaning detergents. In areas where alkaline water is an extreme problem, periodic use of Deliming Powder will remove lime and other deposits before coil becomes plugged. (See Deliming instructions for use of Deliming Powder.)

Deliming Coils:

Periodic flushing of coils or optional float tank is recommended.

Step 1 Fill a container with 4 gallons of water, then add 1 lb. of deliming powder. Mix thoroughly. Pour mixture into float tank.

Step 2 Remove wand assembly from spray gun and put spray gun into float tank. Secure the trigger on the spray gun into the open position.

Step 3 Turn engine on, allowing solution to be pumped through coils back into the float tank. The solution should be allowed to circulate 2-4 hours or until the color changes.

Step 4 After circulating solution, flush the entire system with fresh water. Clean out float tank and then reinstall wand assembly to spray gun.

Removal of Soot from Heating Coil:

In the heating process, fuel residue in the form of soot deposits may develop between the heating coil pipe, and block air flow which will affect burner combustion. When soot has been detected on visual observation, the soot on the coil must be washed off after following the coil removal steps (See Coil Removal section).

Rupture Disk:

If pressure from pump or thermal expansion should exceed safe limits, the rupture disk will burst allowing high pressure to be discharged through hose to ground. When disk ruptures it will need to be replaced. Torque to 35 ft. pounds.

Fuel:

Use clean fuel oil that is not contaminated with water and debris. Replace fuel filter and drain tank every 100 hours of operation.

Use No.1 or No 2 Heating Oil (ASTM D306) only. NEVER use gasoline in your burner fuel tank. Gasoline is more combustible than fuel oil and could result in a serious explosion. **NEVER** use crankcase or waste oil in your burner. Fuel unit malfunction could result from contamination.

Fuel Control System:

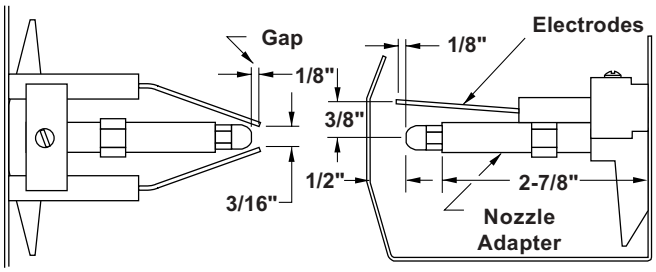
This machine utilizes a fuel solenoid valve located on the fuel pump to control the flow of fuel to the combustion chamber. The solenoid, which is normally closed, is activated by a flow switch when water flows through it. When the operator releases the trigger on the spray gun, the flow of water through the flow switch stops, turning off the electrical current to the fuel solenoid.

The solenoid then closes, shutting off the supply of fuel to the combustion chamber. Controlling the flow of fuel in this way gives an instantaneous burn-or-no-burn situation, thereby eliminating high and low water temperatures and the combustion smoke normally associated with machines incorporating a spray gun. Periodic inspection, to insure that the fuel solenoid valve functions properly, is recommended. This can be done by operating the machine and checking to see that the burner is not firing when the spray gun is in the OFF position.

Fuel Pressure Adjustment:

To control water temperature, adjust fuel pressure by turning the regulating pressure adjusting screw clockwise to increase, counterclockwise to decrease. Do not exceed 200 psi. **NOTE**: When changing fuel pump, a bypass plug must be installed in return port or fuel pump will not prime.

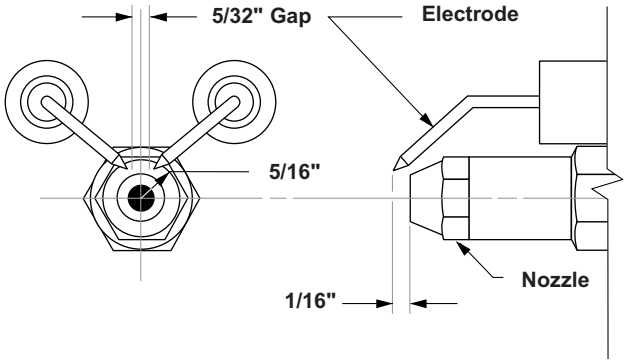
Electrodes Setting: Wayne



Top View **Side View**

Periodically Check Wiring Connections. If Necessary To Adjust Electrodes, Use Diagram.

Electrodes Setting: Beckett



Top View **Side View**

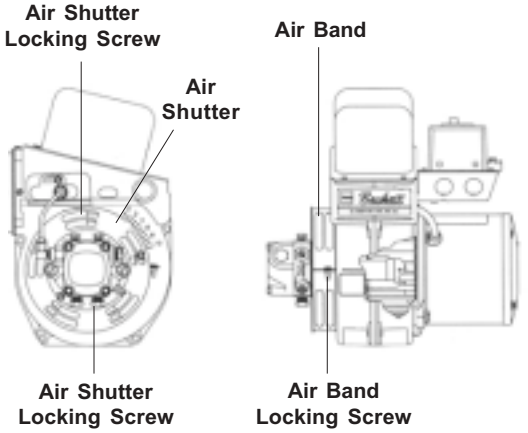
Burner Nozzle:

Keep the tip free of surface deposits by wiping it with a clean, solvent saturated cloth, being careful not to plug or enlarge the nozzle. For maximum efficiency, replace the nozzle each season.

Air Adjustment:

Machines are preset and performance tested at the factory - elevation 100'. A one-time initial correction for your location will pay off in economy, performance, and extended service life. If a smoky or eye-burning exhaust is being emitted from the stack, two things should be checked. First, check the fuel to be certain that kerosene or No. 1 home heating fuel is being used. Next, check the air adjustment on the burner.

To adjust, start machine and turn burner ON. Loosen two locking screws found in the air shutter openings (refer to illustration) and close air shutter until black smoke appears from burner exhaust vent. Note air band position. Next, slowly open the air shutter until white smoke just starts to appear. Turn air shutter halfway back to the black smoke position previously noted. Tighten locking screws.



If the desired position cannot be obtained using only the air shutter, lock the air shutter in as close a position as can be obtained, then repeat the above procedure on the air band setting.

Coil Removal:

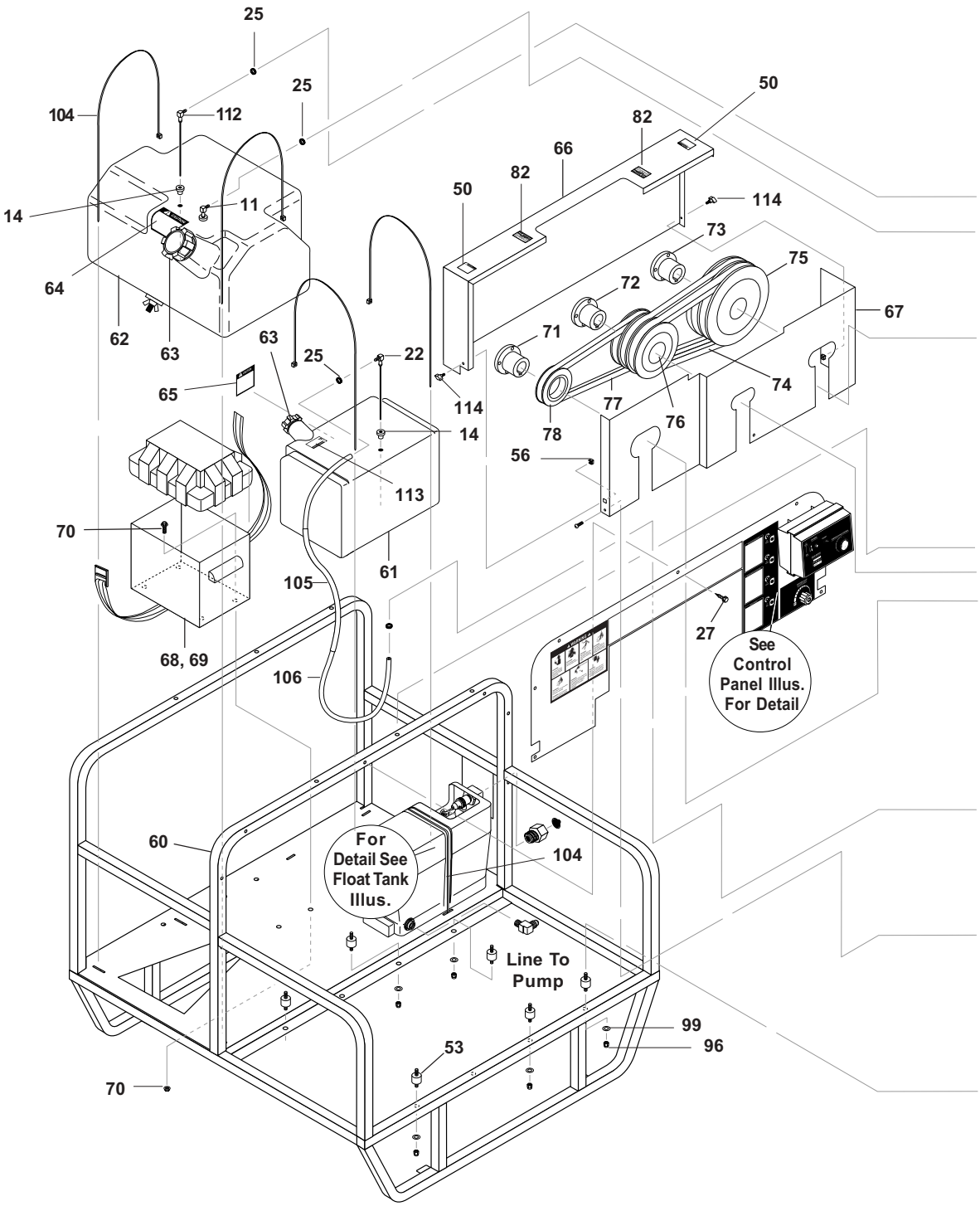
Removal of coil because of freeze breakage, or to clean soot from it can be done quickly and easily.

1. Disconnect hose from pump to inlet side of the coil.
2. Carefully disconnect the thermostat sensor making sure you do not crimp the capillary tube.
3. Remove burner assembly from combustion chamber.
4. Remove the 3-3/8" bolts from each side of coil and tank assembly (these bolts are used to fasten tank to chassis).
5. Remove fittings connected to the 1/2" pipe nipples from inlet and discharge sides of coil.
6. Remove top tank wrap, bend back insulation tabs and fold back blanket.
7. Remove bolts that hold down coil to bottom wrap.
8. Remove coil.
9. Replace or repair any insulation found to be torn or broken.
10. Remove insulation retainer plates.

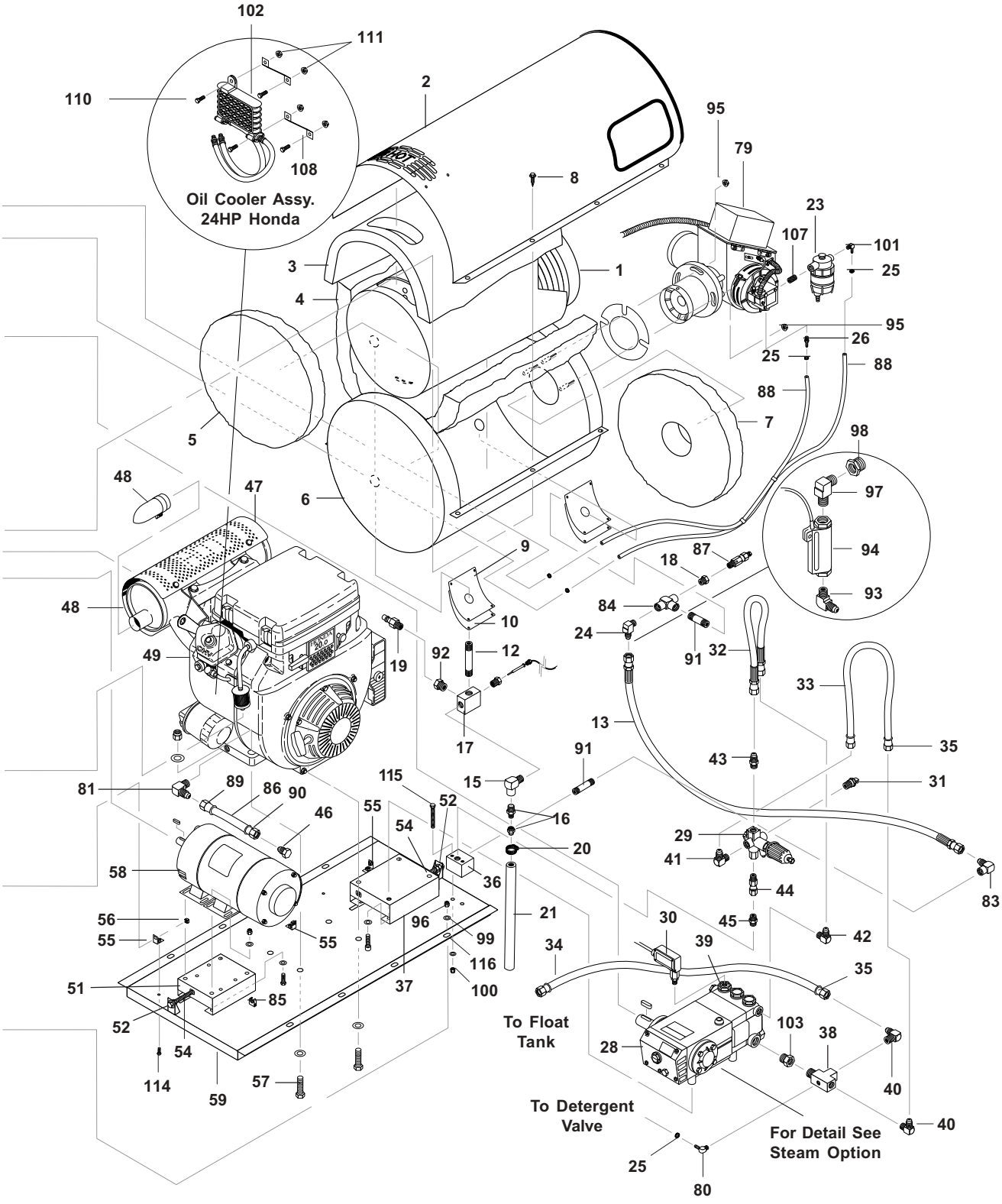
Coil Reinstallation:

Reinstall new or cleaned coil by reversing Steps 9 through 1.

EXPLODED VIEW
LEFT SIDE



EXPLODED VIEW
RIGHT SIDE



EXPLODED VIEW - PARTS LIST

12VDC Models: 503021E, 503027E, 503531E, 503537E

120VAC Models: 503021E/G, 503027E/G, 503531E/G, 503537E/G, 603531E/G, 603537E/G

ITEM	PART NO.	DESCRIPTION	QTY
1	95-07200055	Coil, Rodless	1
2	95-07200010	Top Wrap, SS	1
	2-01104	▲ Trim	6 ft.
3	7-01484	Insulation/Blanket, Die Cut 28" x 24"	1
4	7-01430	Insulation/Blanket, No Foil, 24" x 57"	1
5	7-0140	Insulation, Burner Head No Hole	1
6	95-07200012	Weldment, Bottom Wrap, SS	1
	90-1019	▲ Bolt, 3/8" - 16 x 1-3/4"	2
7	7-0141	Insulation, Burner Head, w/Hole	1
8	90-19959	Screw, 3/8" x 1" HX Wash Head, Sheet Metal	8
9	7-0144	Gasket, Burner Plate	2
10	95-07121113	Insulation Retainer Plate	2
	90-2990	▲ Screw, SS #10, HH Tek	8
11	2-010066	Elbow, Zinc	1
12	2-00101	Nipple, 1/2" x 4" Galv. Sch 80	1
13	4-02047748	Hose 3/8" x 48", 2 Wire Pressure	1
14	2-010061	Bushing, Rubber (3530, 4030) (5030, 5035, 6035)	2 3
15	2-0032	Elbow 1/2", Street	1
16	2-3408	Disk Rupture Assy, 8000 PSI	1
	2-3480	Rupture Disk Replacement, 8000 PSI	1
17	95-07101226	Block, Discharge, Brass, 1/2" x 1/2"	1
18	2-00681	Bushing, 1/2" x 3/8"	2
19	2-2007	Nipple, 3/8" x 3/8" NPT ST Male	1
20	2-90041	Clamp, Screw, #16 Micro	1
21	4-02130050	Hose, 7/8" Push-On, Conduit	1 ft
22	2-010067	Diptube, Plastic, 9.125" Long (5030, 5035, 6035)	1
23	2-99050	Filter, Fuel Oil/H_2O Separator	1
24	2-0054	Elbow, 1/2" MNPT x 1/2" MJIC, Steel	1
25	2-9040	Clamp, Hose, UNI .46 - .54 (3530, 4030) (5030, 5035, 6035)	 4 6
26	2-1085	Hose Barb, 1/4" Barb x 1/4" Pipe	1

ITEM	PART NO.	DESCRIPTION	QTY
27	90-300210	Screw, #14 Tek, Black, Zinc	11
28	5-1661	Pump, Legacy TT 3555 (503027E, 503027E/G, 503537E,503537E/G, 603537E, 603537E/G)	1
	5-2307	Pump, General, TS2021 (503021E, 503021E/G, 503531E, 503531E/G, 605531E, 603531E/G)	1
	2-23040	Pump, General, TS-1011 (353031E, 403031E)	1
	5-1660	Pump, Legacy TT 3540 (353037E, 403037E)	1
29	5-3208	Unloader AL607	1
30	6-021720	Pressure Switch	1
31	2-300816	Pump Protector, 3/8" FNPT	1
32	4-02047716	Pressure Hose 3/8" x 16"	1
33	4-02110000	Hose 1/2" Push On	17 in.
34	4-02110000	Hose, 1/2" Push On	2 ft
35	2-1105	Push On JIC, 1/2"	4
36	95-071012150/B	Block, Unloader, 1/2" x 1/2", Brass	1
37	95-07200054	Rail, Pump	1
	2-011981	▲ Washer, Snubbing	3
	90-1016	▲ Bolt, 3/8 x 1" NC HH	3
	90-4009	▲ Washer, 3/8" Lock Split Ring	3
38	2-10421	Tee, 1/2", w/1/8" Hole, Street	1
	2-10422	Tee, 1/2", w/1/8" Hole, Street (Steam Option)	1
39	1-190029	Cap, Valve, General Pump, W/ Steam Option	1 2
	15-070042532	Cap, Valve, Legacy Pump, W/ Steam Option	1 2
40	2-1062	Elbow, 1/2" JIC x 1/2", 90°	2
41	2-1060	Elbow, 1/2" x 3/8, 90°	1
42	2-0053	Elbow, 1/2" MJIC x 3/8" MNPT	1
43	2-0051	Nipple, 1/2" MJIC x 3/8" MNPT	1
44	2-0079	Swivel, 1/2" JIC Fem, 3/8" Mal	1
45	2-0052	Nipple, 1/2" JIC, 1/2" Pipe	1
46	2-1050	Plug, 1/2" Flare (5030, 5035, 6035)	1
	2-10491	Plug, 1/4" MJIC (3530, 4030)	1

EXPLODED VIEW - PARTS LIST (CONTINUED)

12VDC Models: 503021E, 503027E, 503531E, 503537E

120VAC Models: 503021E/G, 503027E/G, 503531E/G, 503537E/G, 603531E/G, 603537E/G

ITEM	PART NO.	DESCRIPTION	QTY
47	95-07200015	Heat Shield (Honda) (5035, 6035)	1
	95-07200048	▲ Heat Shield (Vanguard)	1
	90-19925	▲ Screw, M6 x 20mm, BH (Honda) (5035, 6035)	4
48	77-VHRM4	Muffler (Honda) (5035, 6035)	1
	79-11465813800	Exhaust Deflector (Honda) (5035, 6035)	1
	76-807965	▲ Muffler (Vanguard)	1
	90-805849	▲ Screw, HH, 1/4" - 20 x 1/2" (Vanguard)	4
	90-19711	▲ Screw, HH, WL, 1/4" - 20 x 1/2" (Vanguard)	5
	95 -07101149	▲ Muffler Guard (Vanguard)	1
	95-071011491	▲ Brace (Vanguard)	2
	95-07200048	▲ Shield, Heat (Vanguard)	1
	90-200012	▲ Nut, 1/4 Flange, Zinc (Vanguard)	3
	90-20231	▲ Nut, Cage, 1/4 x 12 Ga. (Vanguard)	2
49	5-01072	Honda, 11 HP Engine (353031E, 353037E)	1
	5-010720	Honda, 13 HP Engine (403031E, 403037E)	1
	5-01093	Honda 20 HP Engine (503531E, 503531E/G, 503537E, 503537E/G)	1
	5-01094	▲ Honda 24 HP Engine (603531E, 603537E, 603531E/G, 603537E/G)	1
	5-0309	▲ Vanguard, 16 HP (503021E, 503021E/G, 503027E, 503027E/G)	1
	76-91540	▲ Key, Shaft	1
50	10-02028	Label, Belt Guard (Long) (Short)	2 1
51	95-07200009	Pump/Rail Generator	1
	90-1016	▲ Bolt, 3/8" x 1", NC HH (w/Generator)	7
	2-011981	▲ Washer, Snubbing (w/Generator)	3
	90-4009	▲ Washer, 3/8", Lock (w/Generator)	3

ITEM	PART NO.	DESCRIPTION	QTY
52	95-07200016	Bracket, Belt Tension (w/Generator) (w/Generator)	1 2
	90-2001	▲ Nut, 5/16", ESNA, NC (w/Generator) (w/Generator)	2 4
	90-1007	▲ Bolt, 5/16", NC (w/Generator) (w/Generator)	2 4
	90-4001	Washer, 5/16", Flat (w/Generator) (w/Generator)	2 4
53	2-01016	Mount, Rubber	6
54	90-10220	Bolt, 3/8" x 3-1/2" SAE (w/Generator) (w/Generator)	1 2
	90-2007	▲ Nut, 3/8" Hex, NC (w/Generator) (w/Generator)	2 4
	90-4002	▲ Washer, 3/8", SAE, Flat (w/Generator) (w/Generator)	2 4
55	95-07102101	Tab, Belt Guard (w/Generator) (w/Generator)	3 4
	90-19710	▲ Screw, HH, NC, 1/4" x 3/4" (w/Generator) (w/Generator)	6 7
56	90-20231	Cage, Nut, 1/4" x 12 GA (w/Generator) (w/Generator)	10 11
57	90-1020	Bolt, 3/8" x 2" NC HH (Honda)	4
	90-1011	Bolt, 5/16" x 2" NC, HH (Vanguard)	4
	90-4002	▲ Washer, 3/8" SAE, Flat (Honda)	9
	90-2002	▲ Nut, 3/8" ESNA, NC (Honda)	4
	90-2001	▲ Nut, 5/16", ESNA, NC (Vanguard)	4
	90-4001	▲ Washer, 5/16" Flat, SAE (Vanguard)	9
58	6-0601	Winco Generator (E/G models)	1
	6-0107	▲ Cord, Molded (w/Generator)	1
59	95-07200003	Weldment, Sub-Frame	1
60	95-07200002	Weldment, Frame, Red	1
	95-072000022	Weldment, Frame, w/Blk	1
61	2-0115090	Fuel Tank, 6 Ga. (Engine) (5030, 5035, 6035)	1
62	2-01150800	Fuel Tank, 9 Ga. (Burner)	1
63	2-01167	Cap, Fuel, Plastic	2
64	10-020110	Label, Caution, Diesel	1
65	10-02011	Label, Caution, Unleaded	1

EXPLODED VIEW - PARTS LIST (CONTINUED)

12VDC Models: 503021E, 503027E, 503531E, 503537E

120VAC Models: 503021E/G, 503027E/G, 503531E/G, 503537E/G, 603531E/G, 603537E/G

ITEM	PART NO.	DESCRIPTION	QTY
66	95-07200004	Weldment, Belt Guard, Long (w/Generator)	1
	95-07200006	▲ Weldment, Belt Guard, Short (5030, 5035, 6035)	1
	95-07200057	Weldment, Belt Guard, Short w/out Relief (3530, 4030)	1
67	95-07200005	Weldment, Face Plate, Long Red (w/Generator)	1
	95-072000052	Weldment, Face Plate w/Blk, Long	1
	95-07200007	▲ Weldment, Face Plate, Short	1
68	2-0115001	Battery Box, Large	1
69	2-011500	Plate, Battery Box, Large	1
70	90-1996	Screw, 3/8" x 3/4" HH NC Whiz Loc	4
	90-20040	▲ Nut, 3/8", Flange Whiz Loc	4
71	5-511063	Bushing, H x 5/8" (Generator)	1
72	5-511100	Bushing, Engine, H x 1" (3530E, 5030E, 5035E, 4030E)	1
	5-531112	Bushing, Engine, P2 x 1" (5030E/G, 5035E/G)	1
	5-531113	Bushing, Engine, P2 x 1-1/8" (Honda 24 HP) (6035E/G)	1
	5-511113	Bushing, H x 1-1/8" (6035E)	1
73	5-512024	Bushing, Pump, H x 24 mm	1
74	5-604044	Belt, BX44 (603537E, 503021E, 503021E/G, 603531E, 603531E/G 60351E/G, 603537E/G)	2
	5-604042	Belt, BX42 (353031E, 353037E, 403031E, 503027E, 503027E/G, 503537E, 503537E/G)	2
	5-604040	Belt, BX40 (403037E)	2
	5-604043	Belt, BX43 (503531E, 503531E/G)	2
75	5-40508001	Pulley, Pump, 2BK80H (403031E, 403037E,)	1
	5-40509001	Pulley, Pump, 2BK90H (503021E, 503027E, 503531E, 503537E, 503021E/G, 503027E/G, 353031E, 603531E, 603537E, 353037E, 503531E/G, 503537E/G, 603531E/G, 603537E/G,)	1

ITEM	PART NO.	DESCRIPTION	QTY
76	5-407034	Pulley, Engine, 3TB34 (503021E/G, 503531E/G, 503027E/G, 503537E/G)	1
	5-40503401	Pulley, Engine, 2BK34H (353031E. 353037E, 403031E, 403037E, 503021E, 503027E, 503531E, 503537E)	1
	5-407036	Pulley, Engine, 3TB36 (603531E/G, 603537E/G)	1
	5-40504001	Pulley, Engine, 2 BK40H (603531E, 603537E)	1
77	5-604034	Belt, Gen/Eng, BX34 (603537E/G, 603531E/G)	1
	5-604032	Belt, BX32 (503031E/G, 503027E/G, 503531E/G, 503537E/G)	1
78	5-40403401	Pulley, Generator BK34H (503021E/G, 503531E/G, 503027E/G, 503537E/G)	1
	5-40403601	Pulley, Generator BK36H (603531E/G, 603537E/G)	1
79	Burner Assembly, See Burner Spec's Page 21		
	6-01011	▲ Cord, SEO, 16/4 (w/Gen)	3.66 ft
	6-0516	▲ Strain Relief, 1/2"	1
80	2-1088	Hose Barb, 1/4" x 1/8" MNPT, 90°	1
81	2-1061	Elbow, 1/2" MJIC x 1/4" MNPT (Honda) (5035, 6035)	1
	2-0053	Elbow, 1/2" MJIC x 3/8" MNPT (Vanguard) (5030)	1
	2-11063	▲ Plug, Push-On, Oil Drain (3530, 4030)	
82	10-02025A	Label, HOT, Long Belt Guard Short Belt Guard	2 1
83	2-00602	Elbow, 1/2" FNPT x 1/2" MJIC, 90°	1
84	2-0036	Tee, 1/2" FNPT, Steel	1
85	2-9013	Clamp, 1/2" Ro-Clip (5030, 5035, 6035)	1
86	4-02110000	Hose, 1/2" Push-on (5030, 5035, 6035)	1 ft.
	4-02100000	Hose, 1/4", Push-on (3530, 4030)	6 in.
87	2-3245	Valve, Safety Relief, 4500 PSI	1
88	4-02100000	Hose, 1/4" Push-On Fuel Line (60")	2

EXPLODED VIEW - PARTS LIST (CONTINUED)

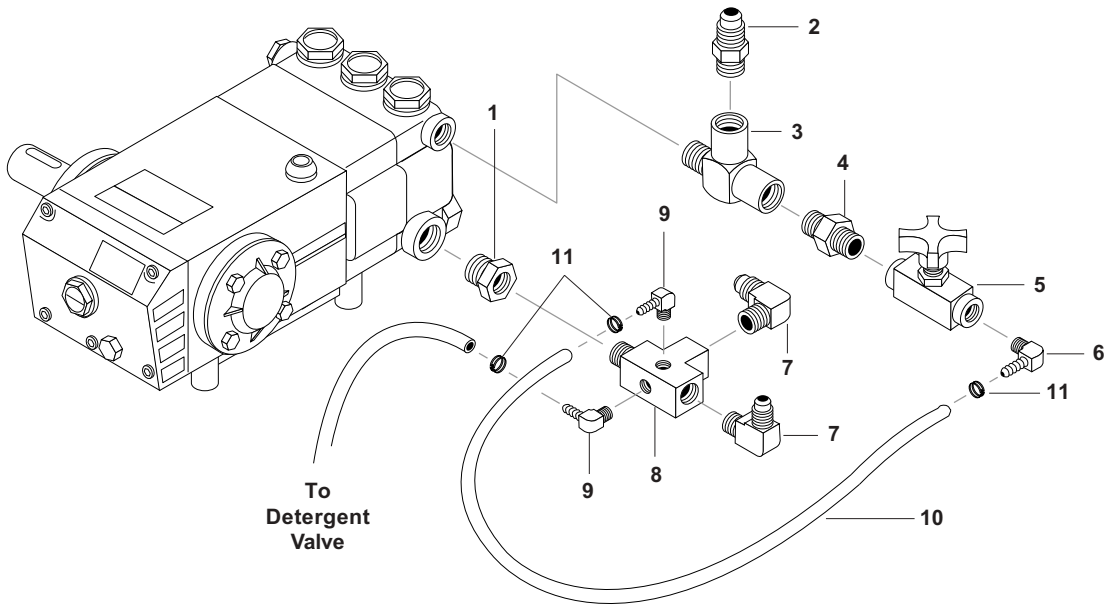
12VDC Models: 503021E, 503027E, 503531E, 503537E

120VAC Models: 503021E/G, 503027E/G, 503531E/G, 503537E/G, 603531E/G, 603537E/G

ITEM	PART NO.	DESCRIPTION	QTY
89	2-1105	Swivel, 1/2 JIC Fem (5030, 5035, 6035)	1
90	2-11062	Swivel, 1/4" JIC Fem (3530, 4030)	1
91	2-000891	Nipple, 1/2" x 2-1/2", Galv. SCH 80 Pipe	2
92	2-00681	Bushing, 1/2" MNPT x 3/8" FNPT Steel	1
93	2-0053	Elbow, 1/2 JIC x 3/8 Male Pipe (Steam Option)	1
94	6-021730	Switch MV60 (Steam Option)	1
95	90-20040	Nut, Flange, Whiz Loc	3
96	90-2001	Nut, 5/16", ESNA, NC	12
97	2-00270	Elbow, 3/8 Male Pipe (Steam Option)	1
98	2-00681	Bushing, 1/2" x 3/8", Steel (Steam Option)	1
99	90-4001	Washer, 5/16", Flat, SAE	12
100	90-2002	Nut, 3/8" ESNA, NC	2
101	2-1089	Hose Barb, 1/4" x 1/4" Pipe, 90°	1
102	90-1034	Bolt, M6 x 1.0 12 x Metric 8.8 SOC, (6035E/G)	2
103	2-1081	Bushing, 3/4" x 1/2" NPT (Legacy Pump Models)	1
104	6-05134	Cable, TY, 48"	5
105	7-0139	Insulation, Fiber Sleeving, 1/2"	30 in
106	4-02100000	Fuel Line, 1/4" x60" (All Models Except 11 & 13 HP Hondas)	1
107	2-1003	Nipple, 1/4" Hex	1
108	95-07200053	Bracket, Oil Cooler, 24 HP, Honda, (6035E/G)	2
109	97-6134	▲ Manual	1
110	90-1002	Bolt, 1/4" x 1" Hex Head (6035E/G)	2
111	90-200012	Nut, 1/4" Flange (6035E/G)	2
112	2-010069	Dip Tube, 10.75"	1
113	10-02029	Label, Danger, Cool Engine	1
114	90-1043	Thumb Screw, 1/4" x 20 x 1/2"	4
115	90-1021	Bolt, 3/8" x 2-1/2" Zinc	2
116	90-4002	Washer, 3/8", SAE, Flat	2

▲ Not Shown

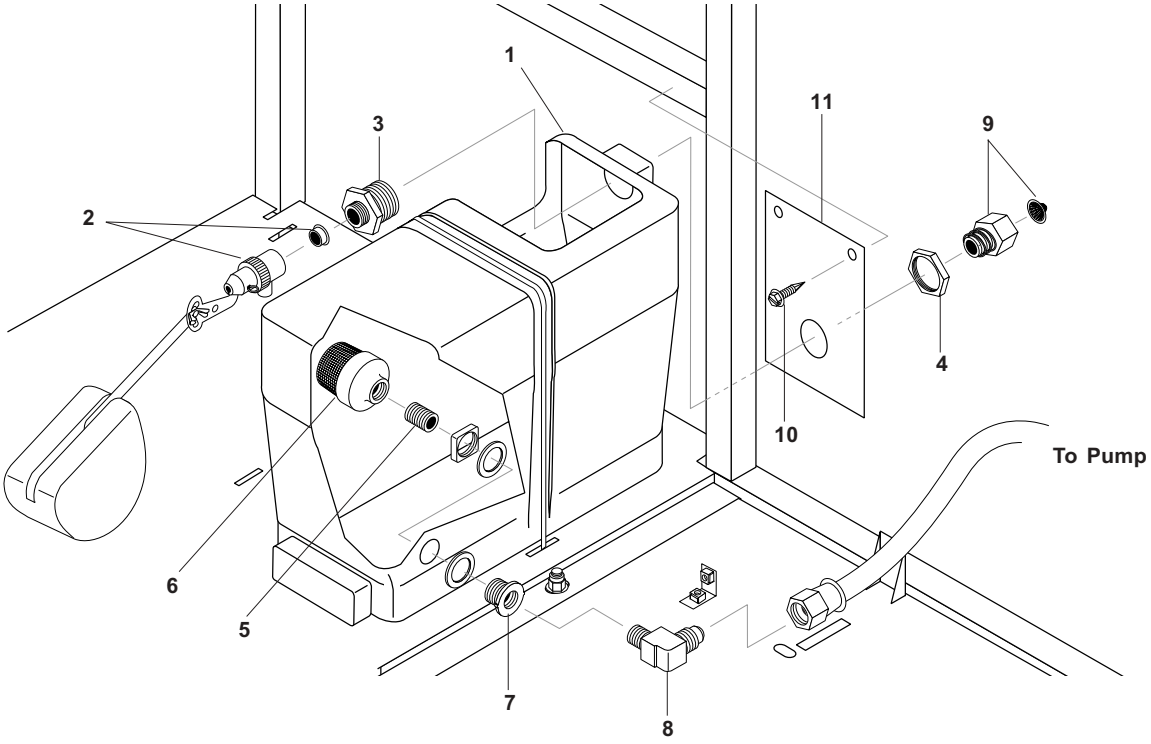
STEAM PUMP
EXPLODED VIEW AND PARTS LIST



ITEM	PART NO.	DESCRIPTION	QTY
1	2-1081	Bushing, 3/4" x 1/2" (Legacy Only)	1
2	2-0051	Nipple, 1/2 JIC x 3/8 MPT Steel	1
3	2-0045	Tee, 3/8 Street, Steel	1
4	2-0018	Nipple, 3/8 x 1/4, Hex, Steel	1
5	2-30151	Valve, Flow Control w/Metering	1
6	2-1089	Hose Barb, 90°, 1/4" Barb x 1/4" Pipe,	1

ITEM	PART NO.	DESCRIPTION	QTY
7	2-1062	Elbow, 1/2 JIC x 1/2" MPT	2
8	2-10422	Tee, 1/2 Street w/Two 1/8" MPT Holes	1
9	2-1088	Hose Barb, 90°, 1/4 x 1/8 NPT	2
10	4-02100000	Hose, 1/4 Push-on	8 in.
11	2-9040	Hose Clamp	3

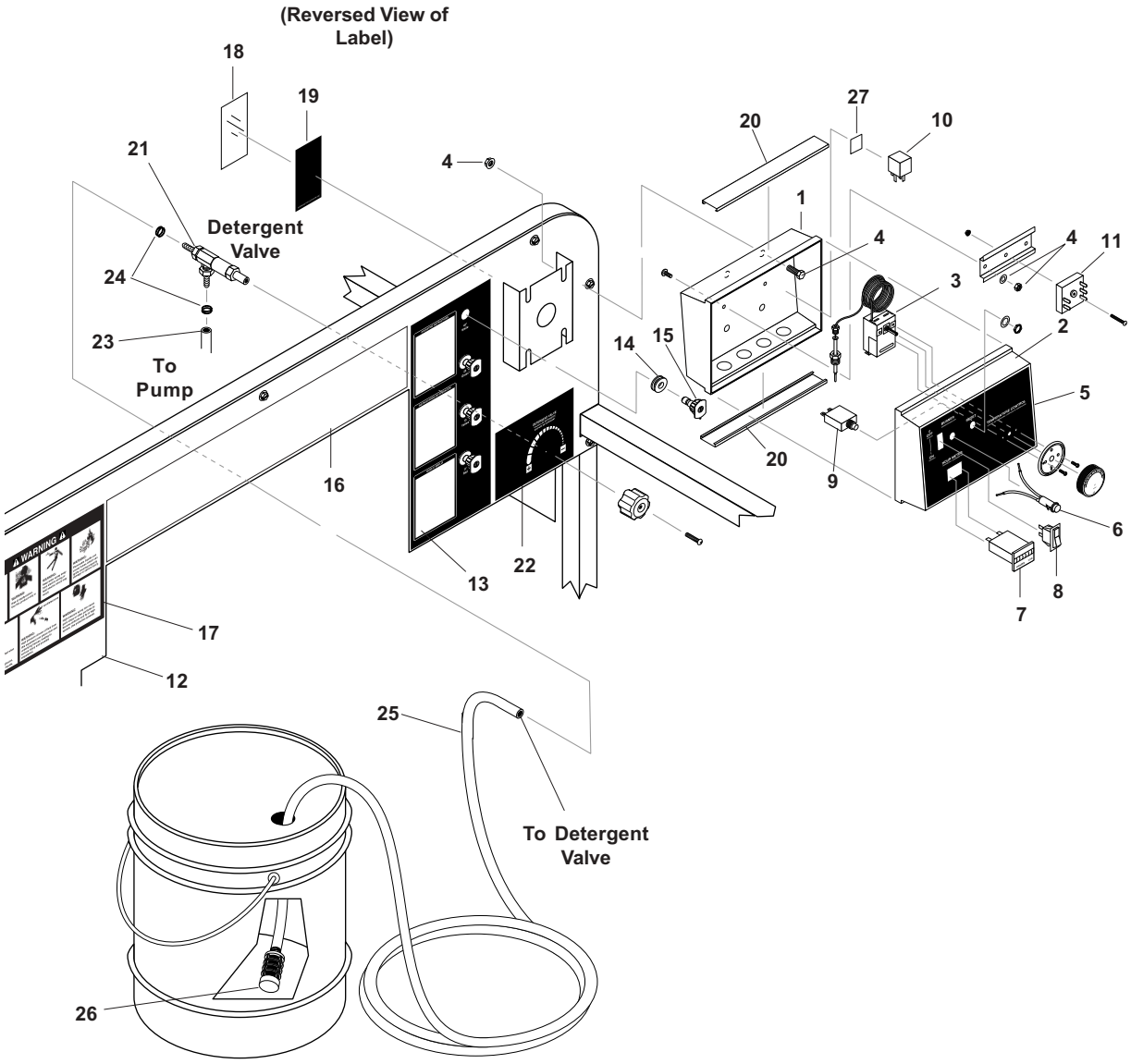
FLOAT TANK ASSEMBLY
EXPLODED VIEW AND PARTS LIST



ITEM	PART NO.	DESCRIPTION	QTY
1	2-01164100	Tank, Float, 2-1/2 Gal	1
2	2-30123	Valve, Float Assembly Seat, Nylon	1
3	2-301231	Connector, Anchor	1
4	2-301232	Nut, Brass	1
5	2-1006	Nipple, Brass, 1/2" Close	1
6	2-1906	Strainer, 1/2" Basket	1

ITEM	PART NO.	DESCRIPTION	QTY
7	2-010049	Bulkhead, 1/2" PVC W/Gaskets	1
8	2-1062	Elbow, 1/2" JIC x 1/2", 90°	1
9	2-10943	Swivel, 1/2" MP x 3/4" GHF, W/Strainer	1
10	90-300210	Screw, #14, Tec, Black, Zinc	2
11	95-07200014	Support Plate, Float Tank	1

CONTROL PANEL
EXPLODED VIEW



CONTROL PANEL
EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	6-03915	Box, Plastic, Back	1
2	6-0391601	Box, Plastic, Front, Fabricated	1
3	4-05088	Thermostat, 302°F	1
	6-01270	▲ Conduit, Corrugated, 1/4"	3.3 ft
4	90-1001	Bolt, 1/4" x 3/4" HH NC	4
	90-200012	Nut, 1/4" Flange Zn	4
5	11-1047	Decal, 12V Electrical Box	1
	11-1045	Decal, 120V Electrical Box (503021E/G, 503531E/G, 603531E/G, 503027E/G, 503537E/G, 603537E/G)	1
6	6-020590	12V Indicator Light, Green	1
	6-020530	120V, Indicator Light, Green (503021E/G, 503531E/G, 603531E/G, 503027E/G, 503537E/G, 603537E/G)	1
7	4-050823	Hour Meter, 12V, DC	1
	4-050822	Hour Meter, 120V (503021E/G, 503537E/G, 603531E/G, 503027E/G, 503531E/G, 603537E/G)	1
8	6-020251	Switch, Curvette	1
9	6-041250	Circuit Breaker, 25 Amp (503021E, 503531E, 603531E, 503027E, 503537E, 603537E)	1
10	6-036711	Relay, 24VDC, 40 Amp (503021E, 503531E, 603531E, 503027E, 503537E, 603537E)	1
	2-90220	▲ Mounting Tape, Sq Backed	1
	6-03671	Relay, 12 VDC, 40 Amp (353031E, 353037E, 403031E, 403037E)	1
	90-1999	Screw, 10/32"x3/4" BH SOC CS (353031E, 353037E, 403031E, 403037E)	1
	90-017	▲ Nut 10/32 Keps	1
11	6-0611	Rectifier, Bridge (3530E, 4030E, 503021E 503531E, 503027E,503537E, 603531E, 603537E)	1
	90-1991	Screw, 10/32" x 1/2" BH SOC Black	1
	6-021595	Din Rail (12 VDC)	4"

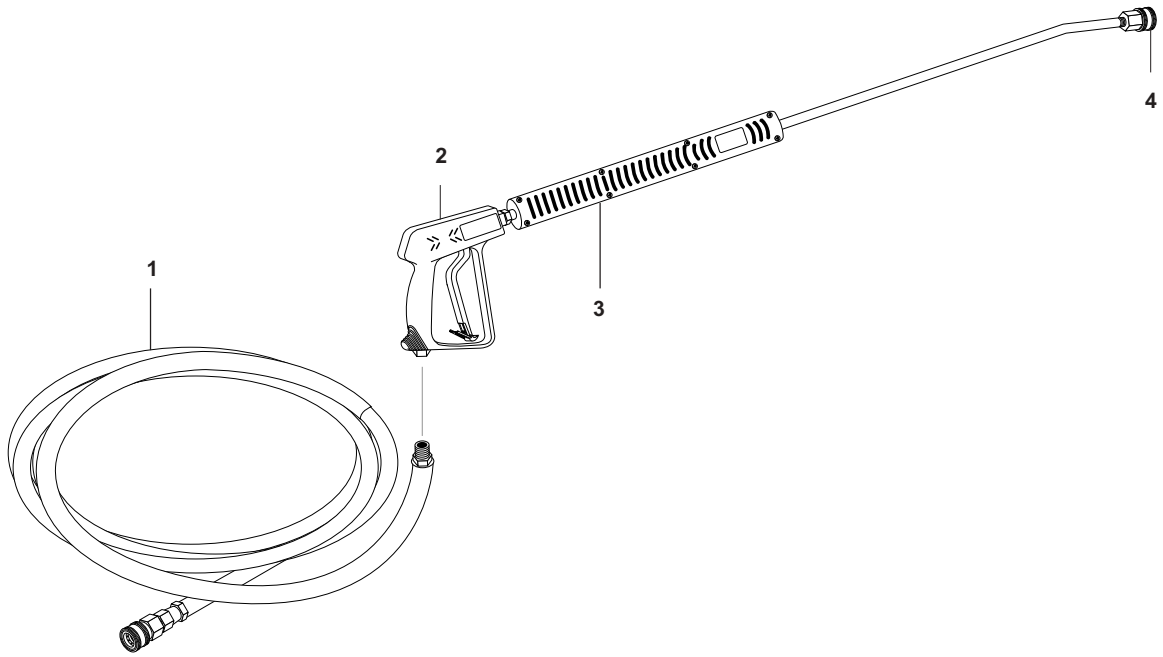
ITEM	PART NO.	DESCRIPTION	QTY
12	95-07200008	Weldment, Control Panel, Red	1
	95-072000082	Weldment Control Panel, Black	1
	90-1994	▲ Screw, Ground Post 10/32" x 1-1/4"	1
	2-01411	▲ Bushing, 1" Snap	1
13	11-1044	Decal, Operating Instructions	1
14	2-0103	Grommet, Rubber, Nozzle Holder	4
15	4-012804000	Nozzle, Red 0° (353031E, 353037E)	1
	4-012804015	Nozzle, Yellow 15° (353031E, 353037E)	1
	4-012804025	Nozzle, Green 25° (353031E, 353037E)	1
	4-012804040	Nozzle, White 40° (353031E, 353037E)	1
	4-12804500	Nozzle, Red 0° (403031E, 403037E)	1
	4-12804515	Nozzle, Yellow 15° (403031E, 403037E)	1
	4-12804525	Nozzle, Green 25° (403031E, 403037E)	1
	4-12804540	Nozzle, White 40° (403031E, 403037E)	1
	4-12805000	Nozzle, Red, 0° (503531E, 503531E/G, 503537E, 503537E/G)	1
	4-12805015	Nozzle, Yellow, 15° (503531E, 503531E/G 503537E, 503537E/G)	1
	4-12805025	Nozzle, Green, 25° (503531E, 503531E/G 503537E, 503537E/G)	1
	4-12805040	Nozzle, White, 40° (503531E, 503531E/G 503537E, 503537E/G)	1
	4-12805500	Nozzle, Red, 0° (503021E, 503027E, 503021E/G, 503027E/G)	1
	4-12805515	Nozzle, Yellow, 15° (503021E, 503027E, 503021E/G, 503027E/G)	1
	4-12805525	Nozzle, Green, 25° (503021E, 503027E, 503021E/G,503027E/G)	1
	4-12805540	Nozzle, White, 40° (503021E, 503027E, 503021E/G,503027E/G)	1

CONTROL PANEL
EXPLODED VIEW PARTS LIST CONT.

ITEM	PART NO.	DESCRIPTION	QTY
15	4-12806000	Nozzle, Red, 0° (603531E, 603531E/G, 603537E, 603537E/G)	1
	4-12806015	Nozzle, Yellow, 15° (603531E, 603531E/G, 603537E, 603537E/G)	1
	4-12806025	Nozzle, Green, 25° (603531E, 603531E/G, 603537E, 603537E/G)	1
	4-12806040	Nozzle, White, 40° (603531E, 603531E/G, 603537E, 603537E/G)	1
16	11-0602	Decal, Stripe	1
	11-0603	Decal, Stripe	1
17	11-1043	Label, Warning	1
18	10-9999	Lexan, Cover, Outdoor	1
19	10-08017	Label, Outdoor	1
20	6-039141	Channel, Plastic	2
21	2-30152	Valve, Metering	1
22	11-0711	Label, Metering Valve	1
23	4-02090000	Hose, Braided	2 ft.
24	2-9040	Clamp, Hose, UNI .46 - .54	3
25	4-02080000	Hose, Clear Vinyl	6 ft.
26	2-1905	Strainer, 1/4" Brass	1
27	90-017	▲ Nut 10/32"	6
28	11-1042	▲ Label, Ground	1

▲ Not Shown

HOSE/SPRAY GUN ASSEMBLY
EXPLODED VIEW AND PARTS LIST



ITEM	PART NO.	DESCRIPTION	QTY
1	4-020750C	Hose 3/8" x 50', Black 2 Wire W/Coupler	1
	4-02073450RC	Hose, 3/8" x 50', Blue 2 Wire w/Coupler	1
2	4-01246	Spray Gun, Shut Off, 10 GPM @ 4000 PSI	1

ITEM	PART NO.	DESCRIPTION	QTY
3	4-0111021	Lance, Spray, Insulated, 35.5" SS	1
4	2-2001	Coupler, 1/4" Male, Brass	1
	2-0132	▲ Seal, 1/4" Replacement Only	1
	2-0119	▲ O-Ring Replacement Only	

▲ Not Shown

PARTS SPECIFICATIONS: LEGACY PUMP

	PUMP							ENGINE		
Machine Model	**Pump Model**	**Part Number**	**Unloader**	**Pulley**	**Pulley Part #**	**Bushing**	**Bushing Part #**	**Engine Size**	**Engine Part #**	**Engine Pulley**
353037E	TT3540	5-1660	5-3208	2BK90H	5-40509001	24MM	5-512024	11HP	5-01072	2BK34H
403037E	TT3540	5-1660	5-3208	2BK80H	5-40508001	24MM	5-512024	13 HP	5-010720	2BK34H
503027E	TT3555	5-1661	5-3208	2BK90H	5-40509001	24MM	5-512024	16 HP	5-0309	2BK34H
503027E/G	TT3555	5-1661	5-3208	2BK90H	5-40509001	24MM	5-512024	16 HP	5-0309	3TB34
503537E	TT3555	5-1661	5-3208	2BK90H	5-40509001	24MM	5-512024	20 HP	5-01093	2BK34H
503537E/G	TT3555	5-1661	5-3208	2BK90H	5-40509001	24MM	5-512024	20 HP	5-01093	3TB34
603537E	TT3555	5-1661	5-3208	2BK90H	5-40509001	24MM	5-512024	24 HP	5-01094	2BK40H
603537E/G	TT3555	5-1661	5-3208	2BK90H	5-40509001	24MM	5-512024	24 HP	5-01094	3TB36

PARTS SPECIFICATIONS: GENERAL PUMP

	PUMP							ENGINE		
Machine Model	**Pump Model**	**Part Number**	**Unloader**	**Pulley**	**Pulley Part #**	**Bushing**	**Bushing Part #**	**Engine Size**	**Engine Part #**	**Engine Pulley**
353031E	TS-1011	5-23040	5-3208	2BK90H	5-40509001	24MM	5-512024	11HP	5-01072	2BK34H
403031E	TS-1011	5-23040	5-3208	2BK80H	5-40508001	24MM	5-512024	13 HP	5-010720	2BK34H
503021E	TS2021	5-2307	5-3208	2BK90H	5-40509001	24MM	5-512024	16 HP	5-0309	2BK34H
503021E/G	TS2021	5-2307	5-3208	2BK90H	5-40509001	24MM	5-512024	16 HP	5-0309	3TB34
503531E	TS2021	5-2307	5-3208	2BK90H	5-40509001	24MM	5-512024	20 HP	5-01093	2BK34H
503531E/G	TS2021	5-2307	5-3208	2BK90H	5-40509001	24MM	5-512024	20 HP	5-01093	3TB34
603531E	TS2021	5-2307	5-3208	2BK90H	5-40509001	24MM	5-512024	24 HP	5-01094	2BK40H
603531E/G	TS2021	5-2307	5-3208	2BK90H	5-40509001	24MM	5-512024	24 HP	5-01094	3TB36

	ENGINE					CONTROLS				
Model	Pulley Part #	Bushing	Bushing Part #	Belt Size	Belt Part #	Pulley	Pulley Part #	Belts	Belt Part #	Bushing
353037E	5-40503401	H x 1	5-511100	BX 42	5-604042	NA	NA	NA	NA	NA
403037E	5-40503401	H x 1	5-511100	BX 40	5-604040	NA	NA	NA	NA	NA
503027E	5-40503401	H x 1	5-511100	BX 42	5-604042	NA	NA	NA	NA	NA
503027E/G	5-407034	P2 X 1	5-531112	BX 44	5-604044	BK34H	5-40403401	BX32	5-604032	5-511063
503537E	5-40503401	H x 1	5-511100	BX 42	5-604042	NA	NA	NA	NA	NA
503537E/G	5-407034	P2 X 1	5-531112	BX 42	5-604042	BK34H	5-40403401	BX32	5-604032	5-511063
603537E	5-40504001	H x 1 1/8	5-511113	BX 44	5-604044	NA	NA	NA	NA	NA
603537E/G	5-407036	P2 X 1-1/8	5-531113	BX 44	5-604044	BK36H	5-40403601	5-511061	5-511062	5-511063

	ENGINE					CONTROLS				
Model	Pulley Part #	Bushing	Bushing Part #	Belt Size	Belt Part #	Pulley	Pulley Part #	Belts	Belt Part #	Bushing
353031E	5-40503401	H x 1	5-511100	BX 42	5-604042	NA	NA	NA	NA	NA
403031E	5-40503401	H x 1	5-511100	BX 42	5-604042	NA	NA	NA	NA	NA
503021E	5-40503401	H x 1	5-511100	BX 44	5-604044	NA	NA	NA	NA	NA
503021E/G	5-407034	P2 X 1	5-531112	BX 44	5-604044	BK34H	5-40403401	BX32	5-604032	5-511063
503531E	5-40503401	H x 1	5-511100	BX 43	5-604043	NA	NA	NA	NA	NA
503531E/G	5-407034	P2 X 1	5-531112	BX 43	5-604043	BK34H	5-40403401	BX32	5-604032	5-511063
603531E	5-40504001	H x 1 1/8	5-511113	BX 44	5-604044	NA	NA	NA	NA	NA
603531E/G	5-407036	P2 X 1-1/8	5-531113	BX 44	5-604044	BK36H	5-40403601	BX34	5-604034	5-511063

BECKETT BURNER SPECIFICATIONS

Model No.	Burner Assy No.	Fuel Nozzle	Transformer	Burner Motor	Fuel/Pump Solenoid/Cord	Fuel Solenoid Coil	Electrode
353031E	7-00030	7-0102	7-515242	7-21699	7-00098	7-21754U	7-5780
353037E	7-00030	7-0102	7-515242	7-21699	7-00098	7-21754U	7-5780
403031E	7-00030	7-0102	7-515242	7-21699	7-00098	7-21754U	7-5780
403037E	7-00030	7-0102	7-515242	7-21699	7-00098	7-21754U	7-5780
503021E	7-00030	7-0103	7-515242	7-21699	7-00098	7-21854U	7-5780
503027E	7-00030	7-0103	7-515242	7-21699	7-00098	7-21854U	7-5780
503021E/G	7-00011	7-01284	7-51824	7-21344U	7-21844U	7-21755U	7-578703
503027E/G	7-00011	7-01284	7-51824	7-21344U	7-21844U	7-21755U	7-578703
503531E	7-00030	7-0103	7-515242	7-21699	7-00098	7-21854U	7-5780
503537E	7-00030	7-0103	7-515242	7-21699	7-00098	7-21854U	7-5780
503531E/G	7-00011	7-01284	7-51824	7-21344U	7-21844U	7-21755U	7-578703
503537E/G	7-00011	7-01284	7-51824	7-21344U	7-21844U	7-21755U	7-578703
603531E	7-00030	7-0103	7-515242	7-21699	7-00098	7-21854U	7-5780
603537E	7-00030	7-0103	7-515242	7-21699	7-00098	7-21854U	7-5780
603531E/G	7-00011	7-01284	7-51824	7-21344U	7-21844U	7-21755U	7-578703
603537E/G	7-00011	7-01284	7-51824	7-21344U	7-21844U	7-21755U	7-578703

WAYNE BURNER SPECIFICATIONS

Model No.	Burner Assy No.	Fuel Nozzle	Transformer	Burner Motor	Fuel/Pump Solenoid/Cord	Fuel Solenoid Coil	Electrode
503021E/G	7-00034	7-0127	7-20358	7-0005	7-0009	7-0009611	7-13286
503027E/G	7-00034	7-0127	7-20358	7-0005	7-0009	7-0009611	7-13286
503531E/G	7-00034	7-0127	7-20358	7-0005	7-0009	7-0009611	7-13286
503537E/G	7-00034	7-0127	7-20358	7-0005	7-0009	7-0009611	7-13286
603531E/G	7-00034	7-0127	7-20358	7-0005	7-0009	7-0009611	7-13286
03537E/G	7-00034	7-0127	7-20358	7-0005	7-0009	7-0009611	7-13286

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
LOW OPERATING PRESSURE	Faulty pressure gauge	Install new gauge.
	Insufficient water supply	Use larger supply hose; clean filter at water inlet.
	Old, worn or incorrect spray nozzle	Match nozzle number to machine and/or replace with new nozzle.
	Belt slippage	Tighten or replace; use correct belt.
	Plumbing or hose leak	Check plumbing system for leaks. Retape leaks with teflon tape.
	Faulty or misadjusted unloader valve	Adjust unloader for proper pressure. Install repair kit when needed.
	Worn packing in pump	Install new packing kit.
	Fouled or dirty inlet or discharge valves in pump	Clean inlet and discharge valves.
	Worn inlet or discharge valves	Replace with valve kit.
	Obstruction in spray nozzle	Remove obstruction.
	Leaking pressure control valve	Rebuild or replace as needed.
	Slow engine RPM	Set engine speed at proper specifications.
	Pump sucking air	Check water supply and possibility of air seepage.
	Valves sticking	Check and clean or replace if necessary.
	Unloader valve seat faulty	Check and replace if necessary.
BURNER WILL NOT LIGHT	Little or no fuel	Fill tank with fuel.
	Improper fuel or water in fuel	Drain fuel tank and fill with proper fuel.
	Clogged fuel line	Clean or replace.
	Plugged fuel filter	Replace as needed.
	Misadjusted burner air bands	Readjust air bands for clean burn.
	Little or no fuel pressure from fuel pump	Increase fuel pressure to specification and/or replace fuel pump. Test with pressure gauge.
	Faulty burner transformer	Test transformer for proper arc between contacts. Replace as needed.
(continued on next page)	Disconnected or short in electrical wiring	All wire contacts should be clean and tight. No breaks in wire.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
BURNER WILL NOT LIGHT (continued from previous page)	Flex coupling slipping on fuel pump shaft or burner motor shaft	Replace if needed.
	On-Off switch defective	Check for electrical current reaching burner assembly with burner switch on.
	Heavy sooting on coil and burner can cause interruption of air flow and shorting of electrodes	Clean as required.
	Improper electrode setting	Check and reset according to diagram in Operator's Manual.
	Fuel not reaching combustion chamber	Check fuel pump for proper flow. Check solenoid flow switch on machines with spray gun control, for proper on-off fuel flow control.
	Clogged burner nozzle	Clean as required.
	Thermostat faulty or slow engine speed	Increase engine RPM to increase voltage.
	Flow switch malfunction	Remove, test for continuity and replace as needed.
	Flow solenoid malfunction	Replace if needed.
FLUCTUATING PRESSURE	Valves worn	Check and replace if necessary.
	Blockage in valve	Check and replace if necessary.
	Pump sucking air	Check water supply and air seepage at joints in suction line.
	Worn piston packing	Check and replace if necessary.
MACHINE SMOKES	Improper fuel or water in fuel	Drain tank and replace contaminated fuel.
	Improper air adjustment	Readjust air bands on burner assembly.
	Low fuel pressure	Adjust fuel pump pressure to specifications.
	Plugged or dirty burner nozzle	Replace nozzle.
	Faulty burner nozzle spray pattern	Replace nozzle.
	Heavy accumulation of soot on coils and burner assembly	Remove coils and burner assembly, clean thoroughly.
	Misaligned electrode setting	Realign electrodes to specifications.
	Obstruction in smoke stack	Check for insulation blockage or other foreign objects.
	Low engine RPM	Increase RPM.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
LOW WATER TEMPERATURE	Improper fuel or water in fuel	Replace with clean and proper fuel.
	Low fuel pressure	Increase fuel pressure.
	Weak fuel pump	Check fuel pump pressure. Replace pump if needed.
	Fuel filter partially clogged	Replace as needed.
	Soot build-up on coils not allowing heat transfer	Clean coils.
	Improper burner nozzle	See burner specifications.
WATER TEMPERATURE TOO HOT	Incoming water to machine warm or hot	Lower incoming water temperature.
	Fuel pump pressure too high	See specifications for proper fuel pressure.
	Fuel pump defective	Replace fuel pump.
	Detergent line sucking air	Tighten all clamps. Check detergent lines for holes.
	Defective temperature switch	Replace.
	Incorrect fuel nozzle size	See burner specifications for proper fuel pressure.
	Insufficient water supplied	Check water G.P.M. to machine.
	Restricted water flow	Check nozzle for obstruction, proper size.
PUMP NOISY	Air in suction line	Check water supply and connections on suction line.
	Broken or weak inlet or discharge valve springs	Check and replace if necessary.
	Excessive matter in valves	Check and clean if necessary.
	Worn bearings	Check and replace if necessary.
PRESENCE OF WATER IN OIL	Oil seal worn	Check and replace if necessary.
	High humidity in air	Check and change oil twice as often.
WATER DRIPPING FROM UNDER PUMP	Piston packing worn	Check and replace if necessary.
	O-Ring plunger retainer worn	Check and replace if necessary.
	Cracked piston	Check and replace if necessary.
	Pump protector	Lower water supply pressure. Do not run with spray gun closed longer than 2 minutes.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
OIL DRIPPING	Oil seal worn	Check and replace if necessary.
EXCESSIVE VIBRATION IN DELIVERY LINE	Irregular functioning of the valves	Check and replace if necessary.
DETERGENT NOT DRAWING	Air leak	Tighten all clamps. Check detergent lines for holes.
	Restrictor in float tank is missing	Replace restrictor. Check for proper orifice in restrictor.
	Filter screen on detergent suction hose plugged	Clean or replace.
	Dried up detergent plugging metering valve	Disassemble and clean thoroughly.
	High viscosity of detergent	Dilute detergent to specifications.
	Hole in detergent line(s)	Repair hole.
	Low detergent level	Add detergent, if needed.
PUMP RUNNING NORMALLY BUT PRESSURE LOW ON INSTALLATION	Pump sucking air	Check water supply and possibility of air seepage.
	Valves sticking	Check and clean or replace if necessary.
	Nozzle incorrectly sized	Check and replace if necessary (See serial plate for proper size).
	Unloader valve seat faulty	Check and replace if necessary.
	Worn piston packing	Check and replace if necessary.
BURNER MOTOR WILL NOT RUN	Fuel pump seized	Replace fuel pump.
	Burner fan loose or misaligned	Position correctly, tighten set screw.
	Defective control switch	Replace switch.
	Loose wire	Check and replace or tighten wiring.
	Defective burner motor	Replace motor.
RELIEF VALVE LEAKS WATER	Relief valve defective	Replace or repair.

OIL CHANGE RECORD

Check pump oil level before first use of your new pressure washer. **Change** pump oil after first 50 hours and every 3 months or 500 hours thereafter. Use SAE 30 weight oil, non-detergent.

Date Oil Changed Month/Day/Year	No. of Operating Hours Since Last Oil Change	Brand Name and Type of Oil (see above)

MAINTENANCE

Maintenance Operation		Every 8 Hrs or Daily	25 Hrs or Weekly	50 Hrs or Monthly	100 Hrs or Yearly	Yearly
Check Oil	Pump		X			
	Engine	X				
Change Oil	Pump					X
	Engine			X		
Air Cleaner		Check		Clean		
Spark Plug					X	
Check Valve Clearance						X
Fuel Tank Filter					X	
Water Filter/Clean		Check				X

SSG SERIES PRESSURE WASHER
WARRANTY

SHARK LIMITED NEW PRODUCT WARRANTY
PRESSURE WASHERS

WHAT THIS WARRANTY COVERS

All SHARK PRESSURE WASHERS are warranted by SHARK to the original purchaser to be free from defects in materials and workmanship under normal use, for the periods specified below. This Limited Warranty is subject to the exclusions shown below, is calculated from the date of the original purchase, and applies to the original components only. Any parts replaced under this warranty will assume the remainder of the part's warranty period. This warranty applies to the original purchaser and is not transferable.

LIMITED LIFETIME PARTS WARRANTY:

Components manufactured by SHARK, such as frames, handles, coil wraps, float tanks, and belt guards. Forged brass pump manifold. All heating coils will have a three year warranty. Internal components on the oil-end of all pressure washer pumps will have a seven year warranty.

ONE YEAR PARTS WARRANTY:

All other components, excluding normal wear items as described below, will be warranted for one year on parts. Warranty on these parts will be for one year regardless of the duration of the original component manufacturer's part warranty.

WARRANTY PROVIDED BY OTHER MANUFACTURERS:

Motors, generators, and engines, which are warranted by their respective manufacturers, are serviced through these manufacturers' local authorized service centers. SHARK cannot provide warranty on these items.

WHAT THIS WARRANTY DOES NOT COVER

This warranty does not cover the following items:

1. Normal wear items, such as nozzles, guns, discharge hoses, wands, quick couplers, seals, filters, gaskets, O-rings, packings, pistons, pump valve assemblies, strainers, belts, brushes, rupture disks, fuses, pump protectors.
2. Damage or malfunctions resulting from accidents, abuse, modifications, alterations, incorrect installation, improper servicing, failure to follow manufacturer's maintenance instructions, or use of the equipment beyond its stated usage specifications as contained in the operator's manual.
3. Damage due to freezing, chemical deterioration, scale buildup, rust, corrosion, or thermal expansion.
4. Damage to components from fluctuations in electrical or water supply.
5. Normal maintenance service, including adjustments, fuel system cleaning, and clearing of obstructions.
6. Transportation to service center, shop labor charges, field labor charges, or freight damage.

WHAT YOU MUST DO TO OBTAIN WARRANTY SERVICE

While not required for warranty service, we request that you register your SHARK pressure washer by returning the completed registration card. In order to obtain warranty service on items, you must return the product to an Authorized SHARK Dealer, freight prepaid, with proof of purchase, within the applicable warranty period. If the product is permanently installed, you must notify your Authorized SHARK Dealer of the defect. The Authorized Dealer will file a claim, which must subsequently verify the defect. In most cases, the part must be returned to SHARK freight prepaid with the claim. For warranty service on components warranted by other manufacturers, the Authorized Dealer can help you obtain warranty service through these manufacturers' local authorized service centers. If you are unable to resolve the warranty claim satisfactorily, write to SHARK at 4275 N.W. Pacific Rim Blvd., Camas, WA 98607, ATTN: Warranty Dept., detailing the nature of the defect, the name of the Authorized Dealer, and a copy of the purchase invoice.

LIMITATION OF LIABILITY

SHARK'S liability for special, incidental, or consequential damages is expressly disclaimed. In no event shall SHARK'S liability exceed the purchase price of the product in question. SHARK makes every effort to ensure that all illustrations and specifications are correct, however, these do not imply a warranty that the product is merchantable or fit for a particular purpose, or that the product will actually conform to the illustrations and specifications. **THE WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.** SHARK does not authorize any other party, including authorized Dealers, to make any representation or promise on behalf of SHARK, or to modify the terms, conditions, or limitations in any way. It is the buyer's responsibility to ensure that the installation and use of SHARK products conforms to local codes. While SHARK attempts to assure that its products meet national codes, it cannot be responsible for how the customer chooses to use or install the product.

SHARK PRESSURE WASHERS
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